

#11

SEQUENCE LISTING

(1) GENERAL INFORMATION:

(i) APPLICANT: Michael J. Heller
Eugene Tu
Glen A. Evans
Ronald G. Sosnowski

(ii) TITLE OF INVENTION: SELF-ADDRESSABLE
SELF-ASSEMBLING MICROELECTRONIC SYSTEMS AND
DEVICES FOR MOLECULAR BIOLOGICAL ANALYSIS
AND
DIAGNOSTICS

(iii) NUMBER OF SEQUENCES: 44

(iv) CORRESPONDENCE ADDRESS:

(A) ADDRESSEE: Lyon & Lyon
(B) STREET: 633 West Fifth Street
(C) CITY: Los Angeles
(D) STATE: California
(E) COUNTRY: USA
(F) ZIP: 90071

(v) COMPUTER READABLE FORM:

(A) MEDIUM TYPE: 3.5" Diskette, 1.44 Mb
storage
(B) COMPUTER: IBM Compatible
(C) OPERATING SYSTEM: IBM P.C. DOS (Version
5.0)
(D) SOFTWARE: WordPerfect (Version
5.1)

(vi) CURRENT APPLICATION DATA:

(A) APPLICATION NUMBER: 08/271,882
(B) FILING DATE: July 7, 1994
(C) CLASSIFICATION:

(vii) PRIOR APPLICATION DATA:

(A) APPLICATION NUMBER: 08/146,504

(B) FILING DATE: November 1, 1993

(viii) ATTORNEY/AGENT INFORMATION:

(A) NAME: Murphy, David B.
(B) REGISTRATION NUMBER: 31,125

FOOT-44021650

[illegible]

(2) INFORMATION FOR SEQ ID NO: 1:

(i) SEQUENCE CHARACTERISTICS:

acid

GCT AGC CCC TGC TCA TGA GTC TCU 24

(i) SEQUENCE CHARACTERISTICS:

acid

AAA AAA AAA AAA AAA AAA AAU 24

(i) SEQUENCE CHARACTERISTICS:

acid

CTA CGT GGA CCT GGA GAG GAA GGA GAC TGC CTG U 34

SECRET

acid

20
nucleic

single
linear

GAG TTC AGC AAA TTT GGA GU

20

acid

20
nucleic

single
linear

CGT AGA ACT CCT CAT CTC CU

20

acid

18
nucleic

single
linear

GTC TCC TTC CTC TCC AGU

18

acid

20
nucleic

single
linear

[illegible]

20

acid

(A) LENGTH:

(B) TYPE:

18

nucleic

(C) STRANDEDNESS:

single

(D) TOPOLOGY:

linear

18

acid

(A) LENGTH:

(B) TYPE:

22

nucleic

(C) STRANDEDNESS:

single

(D) TOPOLOGY :

linear

22

acid

(A) LENGTH:

(B) TYPE:

20

nucleic

(C) STRANDEDNESS :

single

(D) TOPOLOGY:

linear

20

(2) INFORMATION FOR SEQ ID NO: 11:

(i) SEQUENCE CHARACTERISTICS:

acid (A) LENGTH: 20
(B) TYPE: nucleic
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) SEQUENCE DESCRIPTION: SEQ ID NO: 11:

TGT TTG CCT GTT CTC AGA CU 20

(2) INFORMATION FOR SEQ ID NO: 12:

(i) SEQUENCE CHARACTERISTICS:

acid (A) LENGTH: 20
(B) TYPE: nucleic
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) SEQUENCE DESCRIPTION: SEQ ID NO: 12:

CAT CGC TGT GAC AAA ACA TU 20

(2) INFORMATION FOR SEQ ID NO: 13:

(i) SEQUENCE CHARACTERISTICS:

acid (A) LENGTH: 20
(B) TYPE: nucleic
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) SEQUENCE DESCRIPTION: SEQ ID NO: 13:

TGC GAG CTG CAG TCA GAC AT 20

(2) INFORMATION FOR SEQ ID NO: 14:

(i) SEQUENCE CHARACTERISTICS:

acid (A) LENGTH: 18
(B) TYPE: nucleic
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

FOOT" 4 T02T550

SECRET - NOFORN

18

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 18
(B) TYPE: nucleic
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

CCT GCT CAT GAG TCT CTC

18

acid

(A) LENGTH:	19
(B) TYPE:	nucleic
(C) STRANDEDNESS:	single
(D) TOPOLOGY:	linear

TTT TTT TTT TTT TTT TTT T

19

(i) SEQUENCE CHARACTERISTICS:

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(A) LENGTH: 33
(B) TYPE: nucleic
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear
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CAG GCA GTC TCC TTC CTC TCC AGG TCC ACG TAG

33

(i) SEQUENCE CHARACTERISTICS:

acid (A) LENGTH: 19
(B) TYPE: nucleic
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) SEQUENCE DESCRIPTION: SEQ ID NO: 18:

CTC CAA ATT TGC TGA ACT C

19

(2) INFORMATION FOR SEQ ID NO: 19:

(i) SEQUENCE CHARACTERISTICS:

acid (A) LENGTH: 19
(B) TYPE: nucleic
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) SEQUENCE DESCRIPTION: SEQ ID NO: 19:

GGA GAT GAG GAG TTC TAC G

19

(2) INFORMATION FOR SEQ ID NO: 20:

(i) SEQUENCE CHARACTERISTICS:

acid (A) LENGTH: 17
(B) TYPE: nucleic
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) SEQUENCE DESCRIPTION: SEQ ID NO: 20:

CTG GAG AGG AAG GAG AC

17

(2) INFORMATION FOR SEQ ID NO: 21:

(i) SEQUENCE CHARACTERISTICS:

acid (A) LENGTH: 19
(B) TYPE: nucleic
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

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(ii) SEQUENCE DESCRIPTION: SEQ ID NO: 21:

CCA CGT AGA ACT GCT CAT C

19

(2) INFORMATION FOR SEQ ID NO: 22:

(i) SEQUENCE CHARACTERISTICS:

acid (A) LENGTH: 17
(B) TYPE: nucleic
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) SEQUENCE DESCRIPTION: SEQ ID NO: 22:

GTC TCC TTC TTC TCC AG

17

(2) INFORMATION FOR SEQ ID NO: 23:

(i) SEQUENCE CHARACTERISTICS:

acid (A) LENGTH: 21
(B) TYPE: nucleic
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) SEQUENCE DESCRIPTION: SEQ ID NO: 23:

GTC AAA TCT AAG TCT GTG GAA

21

(2) INFORMATION FOR SEQ ID NO: 24:

(i) SEQUENCE CHARACTERISTICS:

acid (A) LENGTH: 19
(B) TYPE: nucleic
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) SEQUENCE DESCRIPTION: SEQ ID NO: 24:

ATC TTC TAA ATC TGC GGA A

19

(2) INFORMATION FOR SEQ ID NO: 25:

(i) SEQUENCE CHARACTERISTICS:

FOOT-4TCT650

acid (A) LENGTH: 19
(B) TYPE: nucleic
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) SEQUENCE DESCRIPTION: SEQ ID NO: 25:

GTC TGA GAA CAG GCA AAC A 19

(2) INFORMATION FOR SEQ ID NO: 26:

(i) SEQUENCE CHARACTERISTICS:

acid (A) LENGTH: 19
(B) TYPE: nucleic
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) SEQUENCE DESCRIPTION: SEQ ID NO: 26:

ATG TTT TGT CAC AGC GAT G 19

(2) INFORMATION FOR SEQ ID NO: 27:

(i) SEQUENCE CHARACTERISTICS:

acid (A) LENGTH: 30
(B) TYPE: nucleic
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) SEQUENCE DESCRIPTION: SEQ ID NO: 27:

GGT GGT GGG CGC CGG CGG TGT GGG CAA GAU 30

(2) INFORMATION FOR SEQ ID NO: 28:

(i) SEQUENCE CHARACTERISTICS:

acid (A) LENGTH: 30
(B) TYPE: nucleic
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) SEQUENCE DESCRIPTION: SEQ ID NO: 28:

091204 100101

GGT GGT GGG CGC CGT CGG TGT GGG CAA GAU

30

(2) INFORMATION FOR SEQ ID NO: 29:

(i) SEQUENCE CHARACTERISTICS:

acid	(A) LENGTH:	15
	(B) TYPE:	nucleic
	(C) STRANDEDNESS:	single
	(D) TOPOLOGY:	linear

(ii) SEQUENCE DESCRIPTION: SEQ ID NO: 29:

CC GCG GCC GCC ACA C 15

(2) INFORMATION FOR SEQ ID NO: 30:

(i) SEQUENCE CHARACTERISTICS:

acid	(A) LENGTH:	15
	(B) TYPE:	nucleic
	(C) STRANDEDNESS:	single
	(D) TOPOLOGY:	linear

(ii) SEQUENCE DESCRIPTION: SEQ ID NO: 30:

CC GCG GCA GCC ACA C 15

(2) INFORMATION FOR SEQ ID NO: 31:

(i) SEQUENCE CHARACTERISTICS:

acid	(A) LENGTH:	15
	(B) TYPE:	nucleic
	(C) STRANDEDNESS:	single
	(D) TOPOLOGY:	linear

(ii) SEQUENCE DESCRIPTION: SEQ ID NO: 31:

CC GTG GCA GCC ACA C 15

(2) INFORMATION FOR SEQ ID NO: 32:

(i) SEQUENCE CHARACTERISTICS:

091204-1014

TOPOOT-4T02T500

acid (A) LENGTH: 30
(B) TYPE: nucleic
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) SEQUENCE DESCRIPTION: SEQ ID NO: 32:

GGT GGT GGG CGC CGG CGG TGT GGG CAA GAU 30

(2) INFORMATION FOR SEQ ID NO: 33:

(i) SEQUENCE CHARACTERISTICS:

acid (A) LENGTH: 29
(B) TYPE: nucleic
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) SEQUENCE DESCRIPTION: SEQ ID NO: 33:

GGT GGT GGG CGC CGG CGG TGT GGG CAA GA 29

(2) INFORMATION FOR SEQ ID NO: 34:

(i) SEQUENCE CHARACTERISTICS:

acid (A) LENGTH: 22
(B) TYPE: nucleic
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) SEQUENCE DESCRIPTION: SEQ ID NO: 34:

TGC CCA CAC CGC CGG CGC CCA C 22

(2) INFORMATION FOR SEQ ID NO: 35:

(i) SEQUENCE CHARACTERISTICS:

acid (A) LENGTH: 22
(B) TYPE: nucleic
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) SEQUENCE DESCRIPTION: SEQ ID NO: 35:

TGC CCA CAC CGA CGG CGC CCA C

22

(2) INFORMATION FOR SEQ ID NO: 36:

(i) SEQUENCE CHARACTERISTICS:

acid	(A) LENGTH:	22
	(B) TYPE:	nucleic
	(C) STRANDEDNESS:	single
	(D) TOPOLOGY:	linear

(ii) SEQUENCE DESCRIPTION: SEQ ID NO: 36:

TGC CCA CAC CGA CGG TGC CCA C

22

(2) INFORMATION FOR SEQ ID NO: 37:

(i) SEQUENCE CHARACTERISTICS:

acid	(A) LENGTH:	7
	(B) TYPE:	nucleic
	(C) STRANDEDNESS:	single
	(D) TOPOLOGY:	linear

(ii) SEQUENCE DESCRIPTION: SEQ ID NO: 37:

ACA CCG C

7

(2) INFORMATION FOR SEQ ID NO: 38:

(i) SEQUENCE CHARACTERISTICS:

acid	(A) LENGTH:	7
	(B) TYPE:	nucleic
	(C) STRANDEDNESS:	single
	(D) TOPOLOGY:	linear

(ii) SEQUENCE DESCRIPTION: SEQ ID NO: 38:

ACA ACG C

7

(2) INFORMATION FOR SEQ ID NO: 39:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH:	31
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FOOTNOTES

acid (B) TYPE: nucleic
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) SEQUENCE DESCRIPTION: SEQ ID NO: 39:

CCA GTC ACG ACG TTG TAA AAC GAC GGC CAG U 31

(2) INFORMATION FOR SEQ ID NO: 40:

(i) SEQUENCE CHARACTERISTICS:

acid (A) LENGTH: 31
(B) TYPE: nucleic
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) SEQUENCE DESCRIPTION: SEQ ID NO: 40:

GTA ATC ATG GTC ATA GCT GTT TCC TGT GTG U 31

(2) INFORMATION FOR SEQ ID NO: 41:

(i) SEQUENCE CHARACTERISTICS:

acid (A) LENGTH: 40
(B) TYPE: nucleic
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) SEQUENCE DESCRIPTION: SEQ ID NO: 41:

GCA TGC CTG CAG GTC GAC TCT AGA GGA TCC CCG GGT ACC G 40

(2) INFORMATION FOR SEQ ID NO: 42:

(i) SEQUENCE CHARACTERISTICS:

acid (A) LENGTH: 40
(B) TYPE: nucleic
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

(ii) SEQUENCE DESCRIPTION: SEQ ID NO: 42:

TGC CAA GCT TGG CTG CAG GTC GAC GGA TCC CCG GGA ATT C 40

FOOT-4702750

(2) INFORMATION FOR SEQ ID NO: 43:

(i) SEQUENCE CHARACTERISTICS:

acid	(A) LENGTH:	24
	(B) TYPE:	nucleic
	(C) STRANDEDNESS:	single
	(D) TOPOLOGY:	linear

(ii) SEQUENCE DESCRIPTION: SEQ ID NO: 43:

AAA TTG TTA TCC GCT CAC AAT TGC 24

(2) INFORMATION FOR SEQ ID NO: 44:

(i) SEQUENCE CHARACTERISTICS:

acid	(A) LENGTH:	24
	(B) TYPE:	nucleic
	(C) STRANDEDNESS:	single
	(D) TOPOLOGY:	linear

(ii) SEQUENCE DESCRIPTION: SEQ ID NO: 44:

ACA CAA CAT ACG AGC CGG AAG CAT 24

FOOT"47021550